What is claimed is:

1. An air filter unit for a portable power tool having a carburetor comprising:

a housing for holding an air filter, the housing having a port in communication with a port in the carburetor for the passage of air from the housing to the carburetor;

means on the housing by which the housing may be secured to the portable power tool; and

a mounting element on the housing for the mounting thereon of an ignition switch for the portable power tool.

2. The unit of claim 1, wherein the mounting element comprises a, generally, cylindrical projection for the mounting thereon of the ignition switch for pivotal movement between a position placing the power tool in a non-operating mode and a position placing the power tool in an operating mode.

3. The unit of claim 2, including a stop lug on the housing adjacent the cylindrical projection for limiting the pivotal movement of the ignition switch beyond the position placing the power tool in an operating mode.

4. The unit of claim 3, including a guide lug on the housing adjacent the stop lug for providing a guiding surface for a choke lever for the power tool carburetor.

5. The unit of claim 4, including a pair of positioning elements on the housing adjacent the mounting element, the positioning elements being separated from one another so as to establish a space into which may be positioned the intermediate section of an S-shaped leaf spring to which is joined at each end of the intermediate section of the leaf spring a respective terminal section, each positioning element having an engaging surface adapted to engage the S-shaped

leaf spring at a respective location at which the intermediate section of the S-shaped leaf spring is joined to a terminal section of the S-shaped leaf spring.

6. The unit of claim 5, wherein the housing includes a housing base and a housing cover and the housing cover rests on the housing base, the housing cover including a depending portion that extends downwardly over the housing base so as to protect electrical wiring components connected to the terminal sections of the leaf spring.

7. The unit of claim 1, wherein the means on the housing by which the housing may be secured to the portable power tool includes a pair of opposed support legs attached to the housing at each of one of their respective ends, each of the other of their respective legs being adapted to be fastened to the power tool.

8. The unit of claim 7, wherein the mounting element comprises a, generally, cylindrical projection for the mounting thereon of the ignition switch for pivotal movement between a position placing the power tool in a non-operating mode and a position placing the tool in an operating mode.

9. The unit of claim 8, including a stop lug on the housing adjacent the cylindrical projection for limiting the pivotal movement of the ignition switch beyond the position placing the power tool in an operating mode.

10. The unit of claim 9, including a guide lug on the housing adjacent the stop lug for providing a guiding surface for a choke lever for the power tool carburetor.

11. The unit of claim 10, including a pair of positioning elements on the housing adjacent the mounting element, the positioning elements being separated from one another so as to establish a space into which may be positioned the intermediate section of an S-shaped leaf spring to which is joined at each end of the

intermediate section of the leaf spring a respective terminal section, each positioning element having an engaging surface adapted to engage the S-shaped leaf spring at a respective location at which the intermediate section of the S-shaped leaf spring is joined to a terminal section of the S-shaped leaf spring.

12. The unit of claim 11, wherein the housing includes a housing base and a housing cover and the housing cover rests on the housing base, the housing cover including a depending portion that extends downwardly over the housing base so as to protect electrical wiring components connected to the terminal sections of the leaf spring.

13. The unit of claim 12. including access holes through one of the opposed support legs for providing access to needles on the carburetor.

14. An ignition assembly for a portable power tool having a carburetor and an ignition circuit comprising:

a choke lever connected to an air valve for controlling the flow of air to the carburetor, the choke lever being reciprocally movable between a first position in which air flow to the carburetor of the portable power tool is not substantially restricted and a second position in which air flow to the carburetor is substantially restricted, the choke lever including a depending abutment;

an ignition switch positioned on a mounting element in the portable power tool so as to be movable between a run position in which the power tool may be operated and a stop position in which the power tool may not be operated, the ignition switch including a depending abutment located in the line of reciprocal movement of the depending abutment of the choke lever when the ignition switch is in the stop position so that reciprocal movement of the choke lever from the first position to the second position causes the depending abutment on the choke lever to engage the depending abutment on the ignition switch and move the ignition switch from the stop position to the run position; and

a leaf spring engaging the ignition switch at a first site of engagement on the

ignition switch when the ignition switch is in the stop position and engaging the ignition switch at a second site of engagement on the ignition switch when the ignition switch is in the run position, the leaf spring being biased for alternatively applying a force to the ignition switch at the first and second sites of engagement in a direction toward the mounting element and away from the choke lever.

15. The ignition assembly of claim 14, wherein the ignition switch is positioned on the mounting element for pivotal movement between the run position and the stop position.

16. The ignition assembly of claim 15, wherein the leaf spring is, generally, S-shaped and has an intermediate section, a first terminal section connected to one end of the intermediate section of the leaf spring and a second terminal section connected to the other end of the intermediate section of the leaf spring, the leaf spring being held in place on the power tool at the intermediate section and the first terminal section of the leaf spring alternatively engaging the ignition switch at the first and second sites of engagement on the ignition switch as the ignition switch is moved between the run position and the stop position.

17. The ignition assembly of claim 16, wherein the leaf spring forms a part of the ignition circuit, and the continuity of the ignition circuit is established when the first terminal section of the leaf spring engages the ignition switch at the first site of engagement and the continuity of the ignition circuit is interrupted when the first terminal section of the leaf spring engages the ignition switch at the second site of engagement.

18. The ignition assembly of claim 17, wherein the second terminal section of the leaf spring is connected to the ignition circuit and the ignition switch includes an electrical conductor located at the first site of engagement on the ignition switch and connected to the ignition circuit.

19. The ignition assembly of claim 18, wherein the first terminal section of the leaf spring includes a rounded protuberance that alternately engages the ignition switch at the first and second sites of engagement.

20. The ignition assembly of claim 19, wherein the ignition switch includes a, substantially, circular opening and the electrical conductor comprises an annulus that is press-fitted in the substantially circular opening.

21. The ignition assembly of claim 20, including positioning means located adjacent the substantially circular opening in the ignition switch for maintaining the electrical conductor in place in the substantially circular opening in the ignition switch.

22. An ignition system for a portable power tool having a carburetor and an ignition circuit comprising:

a housing for holding an air filter, the housing having a port in communication with a port in the carburetor for the passage of air from the housing to the carburetor;

means on the housing by which the housing may be secured to the portable power tool, and a mounting element on the housing for the mounting thereon of an ignition switch for the portable power tool;

a choke lever connected to an air valve for controlling the flow of air to the carburetor, the choke lever being reciprocally movable between a first position in which air flow to the carburetor of the portable power tool is not substantially restricted and a second position in which air flow to the carburetor is substantially restricted, the choke lever including a depending abutment;

an ignition switch positioned on the mounting element so as to be movable between a run position in which the power tool may be operated and a stop position in which the power tool may not be operated, the ignition switch including a depending abutment located in the line of reciprocal movement of the depending abutment of the choke lever when the ignition switch is in the stop position so that

reciprocal movement of the choke lever from the first position to the second position causes the depending abutment on the choke lever to engage the depending abutment on the ignition switch and move the ignition switch from the stop position to the run position; and

a leaf spring engaging the ignition switch at a first site of engagement on the ignition switch when the ignition switch is in the stop position and engaging the ignition switch at a second site of engagement on the ignition switch when the ignition switch is in the run position, the leaf spring being biased for alternatively applying a force to the ignition switch at the first and second sites of engagement in a direction toward the mounting element and away from the choke lever.

23. The ignition system of claim 22, wherein the mounting element comprises a, generally, cylindrical projection that extends, generally, perpendicularly from the housing laterally of the power tool for the mounting thereon of the ignition switch for pivotal movement between a position placing the power tool in a non-operating mode and a position placing the tool in an operating mode.

24. The ignition system of claim 23, including a pair of positioning elements on the housing adjacent the mounting element, the positioning elements being separated from one another so as to establish a space into which may be positioned the intermediate section of an S-shaped leaf spring to which is joined at each end of the intermediate section of the leaf spring a respective terminal section, each positioning element having an engaging surface adapted to engage the S-shaped leaf spring at a respective location at which the intermediate section of the S-shaped leaf spring is joined to a terminal section of the S-shaped leaf spring.

25. The ignition system of claim 24, wherein the leaf spring forms a part of the ignition circuit, and the continuity of the ignition circuit is established when the first terminal section of the leaf spring engages the ignition switch at the first site of engagement and the continuity of the ignition circuit is interrupted when the first

terminal section of the leaf spring engages the ignition switch at the second site of engagement.

26. The ignition system of claim 25, wherein the second terminal section of the leaf spring is connected to the ignition circuit and the ignition switch includes an electrical conductor located at the first site of engagement on the ignition switch and connected to the ignition circuit.

27. The ignition system of claim 26, wherein the first terminal section of the leaf spring includes a rounded protuberance that alternately engages the ignition switch at the first and second sites of engagement.

28. The ignition system of claim 27, wherein the ignition switch includes a, substantially, circular opening and the electrical conductor comprises an annulus that is press-fitted in the substantially circular opening.

29. The ignition system of claim 28, including positioning means located adjacent the substantially circular opening in the ignition switch for maintaining the electrical conductor in place in the substantially circular opening in the ignition switch.

30. The ignition system of claim 29, including a stop lug for limiting the pivotal movement of the ignition switch beyond the position placing the power tool in the run position, the stop lug being integral with the housing and located adjacent the cylindrical projection.

31. The ignition system of claim 30, including a guide lug integral with the housing and located adjacent the stop lug for providing a guiding surface for the carburetor choke lever.

32. The ignition system of claim 31, wherein the housing includes a housing base and a housing cover that rests on the housing base and includes a depending portion that extends downwardly over the housing base so as to protect the electrical wiring components connected to the first and second terminal sections of the leaf spring.

33. The ignition system of claim 22, wherein the means on the housing by which the housing may be secured to the portable power tool includes a pair of opposed support legs attached to the housing at each of one of their respective ends, each of the other of their respective legs being adapted to be fastened to the power tool.

34. The ignition system of claim 33, wherein the mounting element comprises a, generally, cylindrical projection that extends, generally, perpendicularly from the housing laterally of the power tool for the mounting thereon of the ignition switch for pivotal movement between a position placing the power tool in a non-operating mode and a position placing the tool in an operating mode.

35. The ignition system of claim 34, including a pair of positioning elements on the housing adjacent the mounting element, the positioning elements being separated from one another so as to establish a space into which may be positioned the intermediate section of an S-shaped leaf spring to which is joined at each end of the intermediate section of the leaf spring a respective terminal section, each positioning element having an engaging surface adapted to engage the S-shaped leaf spring at a respective location at which the intermediate section of the S-shaped leaf spring is joined to a terminal section of the S-shaped leaf spring.

36. The ignition system of claim 35, wherein the leaf spring forms a part of the ignition circuit, and the continuity of the ignition circuit is established when the first terminal section of the leaf spring engages the ignition switch at the first site of engagement and the continuity of the ignition circuit is interrupted when the first

terminal section of the leaf spring engages the ignition switch at the second site of engagement.

37. The ignition system of claim 36, wherein the second terminal section of the leaf spring is connected to the ignition circuit and the ignition switch includes an electrical conductor located at the first site of engagement on the ignition switch and connected to the ignition circuit.

38. The ignition system of claim 37, wherein the first terminal section of the leaf spring includes a rounded protuberance that alternately engages the ignition switch at the first and second sites of engagement.

39. The ignition system of claim 38, wherein the ignition switch includes a, substantially, circular opening and the electrical conductor comprises an annulus that is press-fitted in the substantially circular opening.

40. The ignition system of claim 39, including positioning means located adjacent the substantially circular opening in the ignition switch for maintaining the electrical conductor in place in the substantially circular opening in the ignition switch.

41. The ignition system of claim 40, including a stop lug for limiting the pivotal movement of the ignition switch beyond the position placing the power tool in the run position, the stop lug being integral with the housing and located adjacent the cylindrical projection.

42. The ignition system of claim 41, including a guide lug integral with the housing and located adjacent the stop lug for providing a guiding surface for the carburetor choke lever.

43. The ignition system of claim 42, wherein the housing includes a housing base and a housing cover that rests on the housing base and includes a depending portion that extends downwardly over the housing base so as to protect the electrical wiring components connected to the first and second terminal sections of the leaf spring.

44. An air filter unit for a portable power tool having a carburetor comprising:

a housing for holding an air filter, the housing including a housing base and a housing cover for the housing base, the housing base including;

a housing base floor including ports through which air may flow to the carburetor and means by which the housing base may be attached to the carburetor;

a housing base perimeter wall integral with the housing base floor and extending, generally, perpendicularly from the perimeter of the housing base floor in the direction of the housing cover, the housing base perimeter wall having an inside surface and an outside surface, the inside surface of the housing base perimeter wall and the housing base floor defining a housing base interior, and the housing base perimeter wall including an anterior section, a posterior section, a first lateral section joining one terminus of the anterior section to one terminus of the posterior section and a second lateral section joining the other terminus of the anterior section to the other terminus of the posterior section such that when the housing is installed in the portable power tool the anterior section is nearest the front of the power tool, the posterior section is nearest the rear of the power tool and the first and second lateral sections are disposed toward opposite sides of the power tool;

an augmentation integral with the first lateral section of the housing base perimeter wall, the augmentation extending, substantially perpendicularly from the housing base floor in a direction away from the housing cover;

a pair of opposed support legs for securing the housing base to the chassis of the portable power tool, a first of the opposed support legs being integral with the augmentation and the second of the opposed support legs being integral with the second lateral section of the housing base wall; and

a mounting element integral with the outside surface of the first lateral section of the housing base perimeter wall for the mounting thereon of an ignition switch for the portable power tool.

45. The unit of claim 44, wherein the mounting element comprises a, generally, cylindrical projection that extends, generally, perpendicularly from the first lateral section of the housing base perimeter wall outwardly of the housing base interior for the mounting thereon of the ignition switch for pivotal movement between a position placing the power tool in a non-operating mode and a position placing the power tool in an operating mode.

46. The unit of claim 45, including a stop lug for limiting the pivotal movement of the ignition switch beyond the position placing the power tool in an operating mode, the stop lug being integral with the outer surface of the first lateral section of the housing base perimeter wall and located between the cylindrical projection and the posterior section of the housing base perimeter wall.

47. The unit of claim 46, including a guide lug integral with the outer surface of the first lateral section of the housing base perimeter wall and located between the stop lug and the posterior section of the housing base perimeter wall for providing a guiding surface for a carburetor choke lever.

48. The unit of claim 47, including a pair of positioning elements integral with the augmentation and located between the mounting element and the anterior section of the housing base perimeter wall, the positioning elements being separated from one another so as to establish a space into which may be positioned the intermediate section of an S-shaped leaf spring to which is joined at each end of the intermediate section of the S-shaped leaf spring a respective terminal section, each positioning element having an engaging surface adapted to engage the S-shaped leaf spring at a respective location at which the intermediate section of the S-shaped leaf spring is joined to a terminal section of the S-shaped leaf spring.

49. The unit of claim 48, wherein the housing cover rests on the housing base and includes a depending portion that extends downwardly over the anterior section of the housing base perimeter wall adjacent the location where the anterior section is joined to the first lateral section of the housing base perimeter wall and beyond the housing base floor so as to protect electrical wiring components connected to the terminal sections of the leaf spring.

50. The unit of claim 49, including access holes through the augmentation and the opposed support leg that is integral with the augmentation for providing access to needles on the carburetor.

51. The unit of claim 44, including a pair of positioning elements integral with the augmentation and located between the mounting element and the anterior section of the housing base perimeter wall, the positioning elements being separated from one another so as to establish a space into which may be positioned the intermediate section of an S-shaped leaf spring to which is joined at each end of the intermediate section of the S-shaped leaf spring a respective terminal section, each positioning element having an engaging surface adapted to engage the S-shaped leaf spring at a respective location at which the intermediate section of the S-shaped leaf spring is joined to a terminal section of the S-shaped leaf spring.

52. The unit of claim 51, wherein the mounting element comprises a, generally, cylindrical projection that extends, generally, perpendicularly from the first lateral section of the housing base perimeter wall outwardly of the housing base interior for the mounting thereon of the ignition switch for pivotal movement between a position placing the power tool in a non-operating mode and a position placing the power tool in an operating mode.

53. The unit of claim 52, including a stop lug for limiting the pivotal movement of the ignition switch beyond the position placing the power tool in an

operating mode, the stop lug being integral with the outer surface of the first lateral section of the housing base perimeter wall and located between the cylindrical projection and the posterior section of the housing base perimeter wall.

54. The unit of claim 53, including access holes through the augmentation and the opposed support leg that is integral with the augmentation for providing access to the needles on the carburetor.

55. The unit of claim 47, wherein a portion of the first lateral section of the housing base perimeter wall that is adjacent the posterior section of the housing base perimeter wall is recessed inwardly toward the housing base interior, the augmentation is located, substantially, in the same plane as the portion of the first lateral section of the housing base perimeter wall that is recessed, and the cylindrical projection, the stop lug and the guide lug are all located on the portion of the first lateral section of the housing base perimeter wall that is recessed.

56. The unit of claim 55, including a pair of positioning elements integral with the augmentation and located between the mounting element and the anterior section of the housing base perimeter wall, the positioning elements being separated from one another so as to establish a space into which may be positioned the intermediate section of an S-shaped leaf spring to which is joined at each end of the intermediate section of the S-shaped leaf spring a respective terminal section, each positioning element having an engaging surface adapted to engage the S-shaped leaf spring at a respective location at which the intermediate section of the S-shaped leaf spring is joined to a terminal section of the S-shaped leaf spring.

57. The unit of claim 56, wherein the housing cover rests on the housing base and includes a depending portion that extends downwardly over the anterior section of the housing base perimeter wall adjacent the location where the anterior section is joined to the first lateral section of the housing base perimeter wall and

beyond the housing base floor so as to protect electrical wiring components connected to the terminal sections of the leaf spring.

58. The unit of claim 57, including access holes through the augmentation and the opposed support leg that is integral with the augmentation for providing access to the needles on the carburetor.

59. An ignition system for a portable power tool having a carburetor and an ignition circuit comprising:

a housing for holding an air filter, the housing including a housing base and a housing cover for the housing base, the housing base including;

a housing base floor including ports through which air may flow to the carburetor and means by which the housing base may be attached to the carburetor;

a housing base perimeter wall integral with the housing base floor and extending, generally, perpendicularly from the perimeter of the housing base floor in the direction of the housing cover, the housing base perimeter wall having an inside surface and an outside surface, the inside surface of the housing base perimeter wall and the housing base floor defining a housing base interior, and the housing base perimeter wall including an anterior section, a posterior section, a first lateral section joining one terminus of the anterior section to one terminus of the posterior section and a second lateral section joining the other terminus of the anterior section to the other terminus of the posterior section such that when the housing is installed in the portable power tool the anterior section is nearest the front of the power tool, the posterior section is nearest the rear of the power tool and the first and second lateral sections are disposed toward opposite sides of the power tool;

an augmentation integral with the first lateral section of the housing base perimeter wall, the augmentation extending, substantially perpendicularly from the housing base floor in a direction away from the housing cover;

a pair of opposed support legs for securing the housing base to the chassis of the portable power tool, a first of the opposed support legs being integral with the augmentation and the second of the opposed support legs being integral with the

second lateral section of the housing base wall;

a mounting element integral with the outside surface of the first lateral section of the housing base perimeter wall for the mounting thereon of an ignition switch for the portable power tool; a choke lever connected to an air valve for controlling the flow of air to the carburetor, the choke lever being reciprocally movable between a first position in which air flow to the carburetor of the portable power tool is not substantially restricted and a second position in which air flow to the carburetor is substantially restricted, the choke lever including a depending abutment;

an ignition switch positioned on the mounting element so as to be movable between a run position in which the power tool may be operated and a stop position in which the power tool may not be operated, the ignition switch including a depending abutment located in the line of reciprocal movement of the depending abutment of the choke lever when the ignition switch is in the stop position so that reciprocal movement of the choke lever from the first position to the second position causes the depending abutment on the choke lever to engage the depending abutment on the ignition switch and move the ignition switch from the stop position to the run position; and

a leaf spring engaging the ignition switch at a first site of engagement on the ignition switch when the ignition switch is in the stop position and engaging the ignition switch at a second site of engagement on the ignition switch when the ignition switch is in the run position, the leaf spring being biased for alternatively applying a force to the ignition switch at the first and second sites of engagement in a direction toward the mounting element and away from the choke lever.

60. The ignition system of claim 59, wherein the mounting element comprises a, generally, cylindrical projection that extends, generally, perpendicularly from the first lateral section of the housing base perimeter wall outwardly of the housing base interior.

61. The ignition system of claim 60, including a pair of positioning elements integral with the augmentation and located between the mounting element

and the anterior section of the housing base perimeter wall, the positioning elements being separated from one another so as to establish a space into which the intermediate section of an S-shaped leaf spring is placed, each positioning element having an engaging surface adapted to engage the S-shaped leaf spring at a respective location at which the intermediate section of the S-shaped leaf spring is joined to the first and second terminal sections of the S-shaped leaf spring.

62. The ignition system of claim 61, wherein the leaf spring forms a part of the ignition circuit, and the continuity of the ignition circuit is established when the first terminal section of the leaf spring engages the ignition switch at the first site of engagement and the continuity of the ignition circuit is interrupted when the first terminal section of the leaf spring engages the ignition switch at the second site of engagement.

63. The ignition system of claim 62, wherein the second terminal section of the leaf spring is connected to the ignition circuit and the ignition switch includes an electrical conductor located at the first site of engagement on the ignition switch and connected to the ignition circuit.

64. The ignition system of claim 63, wherein the first terminal section of the leaf spring includes a rounded protuberance that alternately engages the ignition switch at the first and second sites of engagement.

65. The ignition system of claim 64, wherein the ignition switch includes a, substantially, circular opening and the electrical conductor comprises an annulus that is press-fitted in the substantially circular opening.

66. The ignition system of claim 65, including positioning means located adjacent the substantially circular opening in the ignition switch for maintaining the electrical conductor in place in the substantially circular opening in the ignition switch.

67. The ignition system of claim 66, including a stop lug for limiting the pivotal movement of the ignition switch beyond the position placing the power tool in the run position, the stop lug being integral with the outer surface of the first lateral section of the housing base perimeter wall and located between the cylindrical projection and the posterior section of the housing base perimeter wall.

68. The ignition system of claim 67, including a guide lug integral with the outer surface of the first lateral section of the housing base perimeter wall and located between the stop lug and the posterior section of the housing base perimeter wall for providing a guiding surface for the carburetor choke lever.

69. The ignition system of claim 68, wherein the housing cover rests on the housing base and includes a depending portion that extends downwardly over the anterior section of the housing base perimeter wall adjacent the location where the anterior section is joined to the first lateral section of the housing base perimeter wall and beyond the housing base floor so as to protect the electrical wiring components connected to the first and second terminal sections of the leaf spring.

70. The ignition system of claim 69, including access holes through the augmentation and the opposed support leg that is integral with the augmentation for providing access to needles on the carburetor.

71. The ignition system of claim 70, wherein a portion of the first lateral section of the housing base perimeter wall that is adjacent the posterior section of the housing base perimeter wall is recessed inwardly toward the housing base interior, the augmentation is located, substantially, in the same plane as the portion of the first lateral section of the housing base perimeter wall that is recessed, and the cylindrical projection, the stop lug and the guide lug are all located on the portion of the first lateral section of the housing base perimeter wall that is recessed.